

Work begins on million-dollar renovations on WP plant

by Rachel Newton

Excavation work and interior demolitions have begun recently on the aging white phosphorus (WP) production facility at Pine Bluff Arsenal.

"Some of the initial excavation work has been started. You maybe have noticed a large whole on one side of the existing WP facility," said Allen Dehaghani, project engineer with the Directorate of Engineering and Technology. "We are making way for the new facility and still working along the same timeline."

In late September 2005, Arsenal officials signed a \$20 million contract for the WP modernization project with Shaw Environmental, Inc., of Stoughton, Mass. This project is one of the largest investments in PBA's industrial capacity since the early 1980s.

"Last week (second week of March), we had a progress review on the design by Shaw and Teledyne-Brown," said Dehaghani in an interview March 21. "There were letting us know where they are as far as construction on the actual fill line itself and we also discussed some of the major systems that will be subcontracted."

WP is a white or pale yellow, translucent waxy chemical solid used for smoke screening and obscuration by the military. The Arsenal has been the only location for the production of these types of munitions in the western hemisphere since World War II. The WP modernization effort will improve the safety, environmental performance, flexibility of the operation, and efficiency of the filling of the munitions, according to information E&T.

"The fill line itself is actually going to be assembled in Huntsville, Ala., by Teledyne-Brown," said Dehaghani. "It will be preliminary tested before it is disassembled and shipped here. Then it will be reassembled here and tested again. They are mainly looking for leakage and any discharge from the nozzles. They are required to do a 40-hour performance test once it gets here."

He explained that the line is taken apart in four sections with one of those larger sections being almost 35 to 40 feet long.

"It is going well over all," said Dehaghani. "There are some issues we are resolving as we go along. With a project of this magnitude, we expect hiccups here and there. Issues come up with the interface between the contractors and subcontractors and those issues have to be resolved. We try to keep everyone communicating."

The project is like a big puzzle, he said. "All the pieces are slowly coming together and that is a good feeling."

Dehaghani said the facility is going to be much nicer once the modernization is complete. "When we designed the facility, downsizing was taken into consideration since the requirements of the product are less, there will be less man power needed," he said. "However, the level of training and expertise will go higher because of the computerized systems. There will be probably a lot of training involved for the operators and maintenance crews."

Lean process manufacturing is also being implemented into the facility.

"We should start seeing equipment being delivered for the facility along the September/October time frame," he said. "We have another progress meeting scheduled soon in Alabama to actually see the fill line being put together. Since we have been working on this project for nearly five years, everyone is ready to see it come to fruition."

Testing of the new line is tentatively scheduled for early 2007 and the new systems are set to be online by second quarter of 2007.